

August 5, 2004

MEMORANDUM TO: Daniel M. Gillen, Deputy Director  
Decommissioning Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

FROM: John B. Hickman, Project Manager **/RA/**  
Reactor Decommissioning Section  
Decommissioning Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: SUMMARY OF THE JUNE 17, 2004, MEETING BETWEEN THE U.S.  
NUCLEAR REGULATORY COMMISSION STAFF AND YANKEE  
ATOMIC ELECTRIC COMPANY REGARDING THE YANKEE (ROWE)  
NUCLEAR POWER STATION LICENSE TERMINATION PLAN

On June 17, 2004, a public meeting was held at the U.S. Nuclear Regulatory Commission offices between staff from NRC, and Yankee Atomic Electric Company (hereafter Yankee) to discuss a change to the licensee's decommissioning and dismantlement approach and its impact on the License Termination Plan (LTP) for the Yankee (Rowe) Nuclear Power Station.

Discussion issues included problems with radwaste shipments, the free release of the vapor container steel with non-detectable contamination, the retention of plant debris with non-detectable contamination as fill material and survey techniques for these materials. The coordination of confirmatory surveys by ORISE was also discussed.

The meeting attendance list and a copy of the slides used by the licensee for their presentation is attached. This meeting was noticed on June 7, 2004. No proprietary information was disseminated or presented at this meeting. No regulatory decisions were requested or made.

Docket No. 50-029

Attachments:

1. Attendance List
2. Presentation Slides

cc: Service List

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\*See Previous Concurrence

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DATE	08/5/2004	08/5/2004	08/5/2004
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**OFFICIAL RECORD COPY**

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Yankee (Rowe) Nuclear Power Station

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Attendees List for  
Meeting with Yankee Atomic Electric Company  
Regarding Submittal of a License Termination Plan  
For the Yankee (Rowe) Nuclear Power Station  
June 17, 2004

Name	Organization
Gerry van Noordennen	Yankee Atomic Electric Company
Greg Babineau	Yankee Atomic Electric Company
Eric Darois	RSCS / Yankee Atomic Electric Company
Alice Carson	RSCS / Yankee Atomic Electric Company
Jim Kay	Yankee Atomic Electric Company
Ellen Heath	Yankee Atomic Electric Company
W. H. Barley	Yankee Atomic Electric Company
Claudia Craig	Division of Waste Management, NMSS, NRC
Chris McKenney	Division of Waste Management, NMSS, NRC
John Hickman	Division of Waste Management, NMSS, NRC



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# Yankee Atomic Electric Company Update of D&D Approach

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Meeting with USNRC  
June 17, 2004

# Introductions

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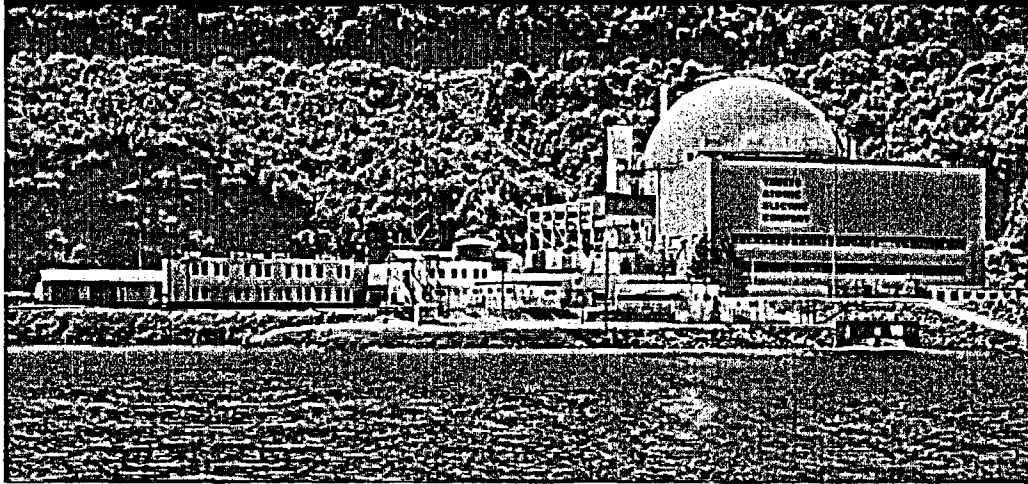
# Discussion Topics

- Decommissioning Progress
- Revision of Materials Management Approach
- Events Leading to Change in Approach
- Summary of Approach
- Dose Modeling Efforts
- Anticipated LTP Changes
- Future Discussions with NRC



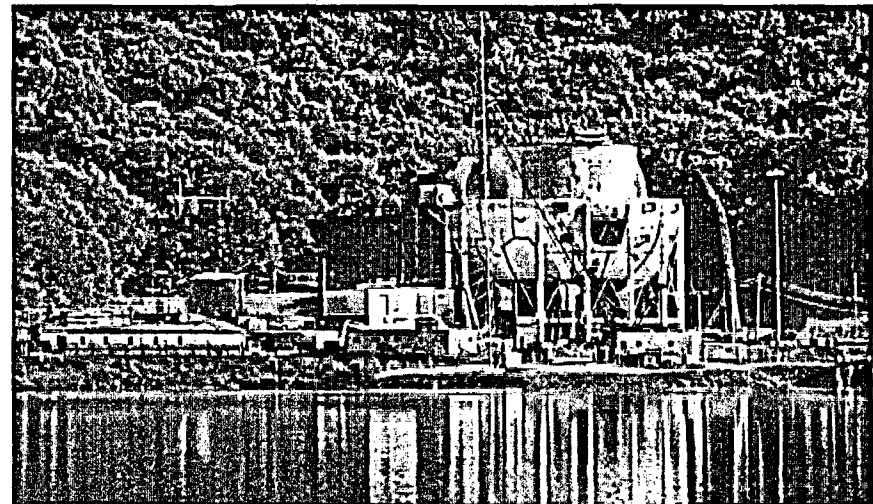
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# Decommissioning Progress



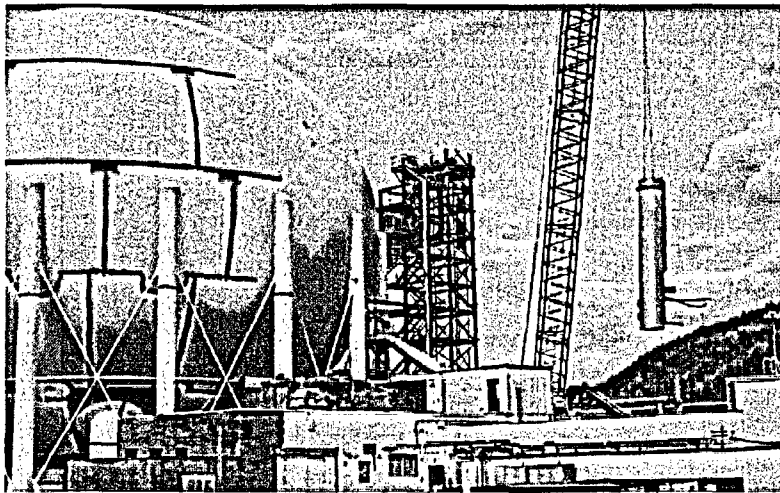
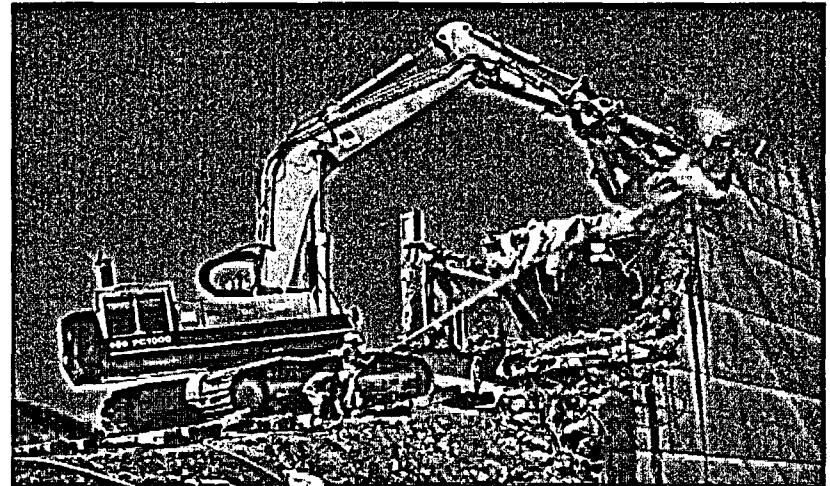
During  
Operations

Currently



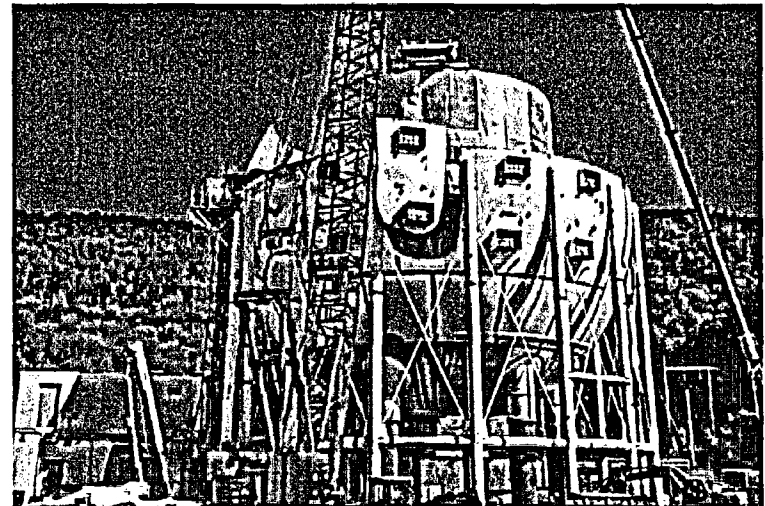
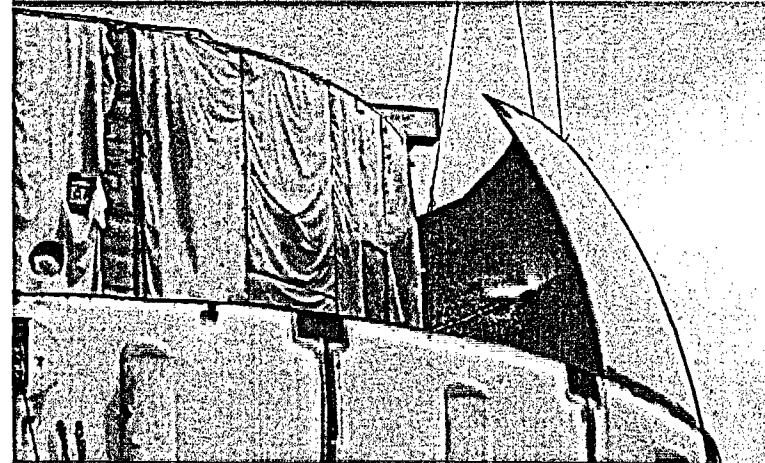
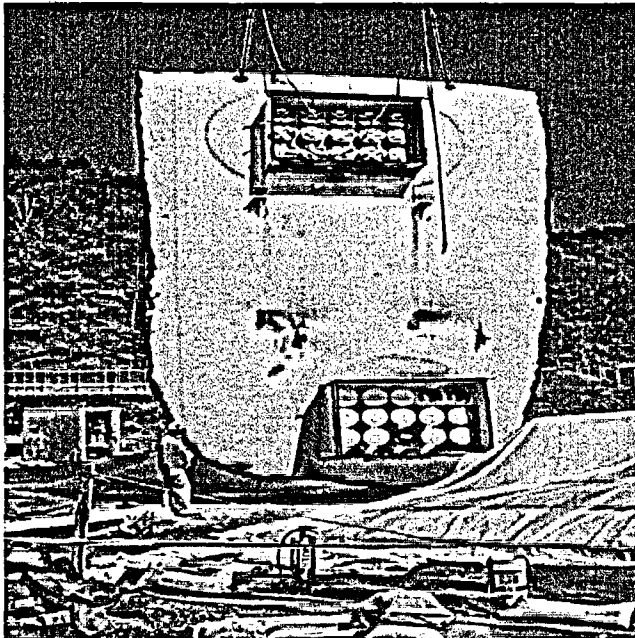
# Decommissioning Progress (Cont'd)

- Building Demolition
  - Turbine Building
  - Waste Warehouse
  - Safe Shutdown Building
  - Fuel Transfer Enclosure
  - Plant Vent Stack
  - Service Building



# Decommissioning Progress (Cont'd)

- Cutting of the Metal Vapor Container



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# Revision of Materials Management Approach

- Up to Now Plans to Ship Entire RCA
- Looking at Past Performance, Concerns Have Arisen From Recent Events
- Investigating Ways of Reducing the Number of Shipments Offsite and the Distance Traveled by Those Shipments

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# Events Leading to Change

- Over 2100 Truckloads of Waste Remaining
  - Assumes that only partial building basements and slabs remain
  - Some additional fill dirt to be brought in
- Two Truck Incidents
  - Truck lost load
  - Empty truck involved in accident

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# Summary of Approach

- Vapor Containment (VC) Steel
- Primary Auxiliary Building (PAB)
- Reactor Support Structure (RSS)
- Building Slabs
- Asphalt
- Soil
- Spent Fuel Pit (SFP)

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# VC Steel

- Puncture Risk During Transport
- Damage to Inter-Modal During Dumping
- Reduced Transportation Risk to a Recycler
- PCB Paint Removal
- Free Release Following Decontamination in Accordance with IEC 81-07 and Aggregate Guidance

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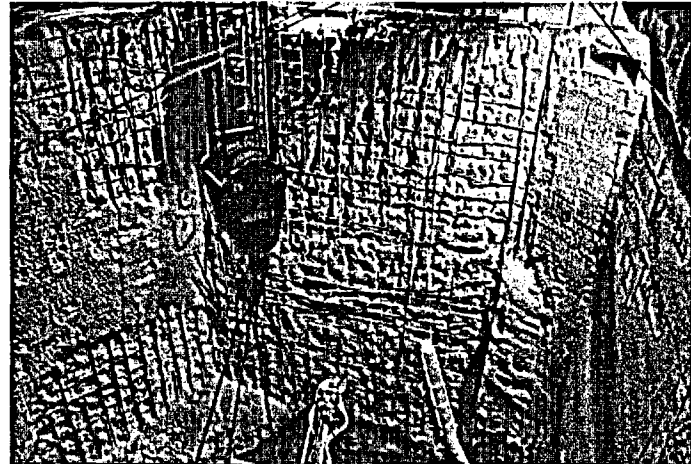
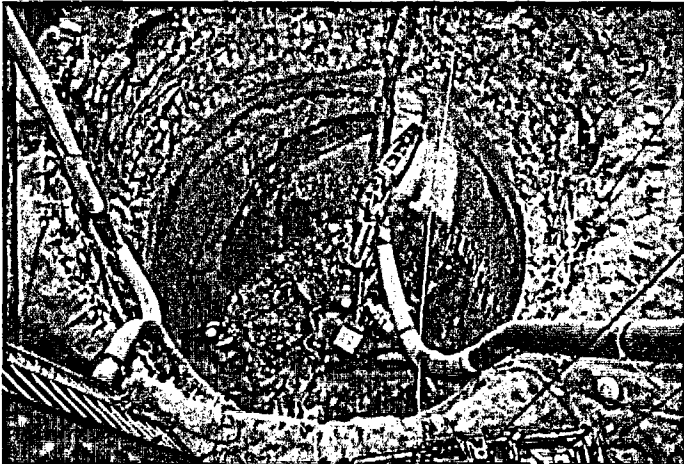
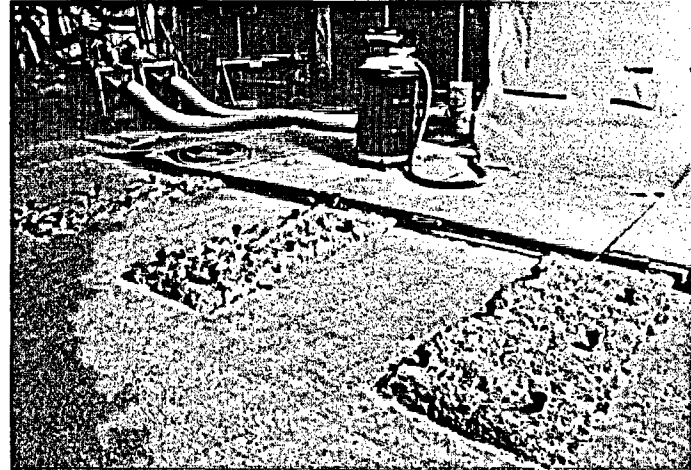
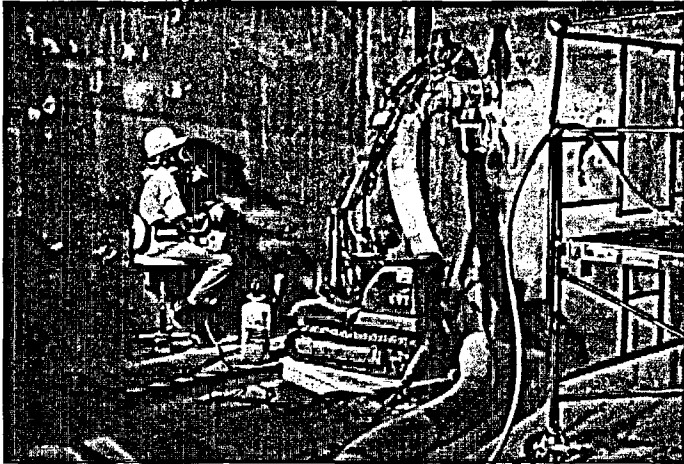
# Primary Auxiliary Building and Reactor Support Structure

- Combination of Free Release and <DCGL Based upon Structural Surveys for Concrete and Steel
- Release Rebar to Recycler
- Concrete Stays on Site (Exception >DCGL)
- DCGL Confirmation of Aggregate with Truck Gamma Spectroscopy System



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# Current Status of PAB and RSS



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# Building Slabs and Asphalt

- Survey in Place
- <DCGL Concrete to be Kept on Site
- Free Released Asphalt to be Kept on Site
- >DCGL and Hazardous Material Contamination Shipped Off Site
  - Rad to Envirocare
  - Non-Rad to approved landfill (aggregate survey using truck gamma spectroscopy system)

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# Soil

- < DCGL Remains on Site
- > DCGL Shipped to Licensed Disposal Facility
- Hazardous Material Contaminated
  - Rad to Licensed Disposal Facility
  - Non-Rad to approved landfill (aggregate survey using truck gamma spectroscopy system)

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# Spent Fuel Pit/Ion Exchange Pit

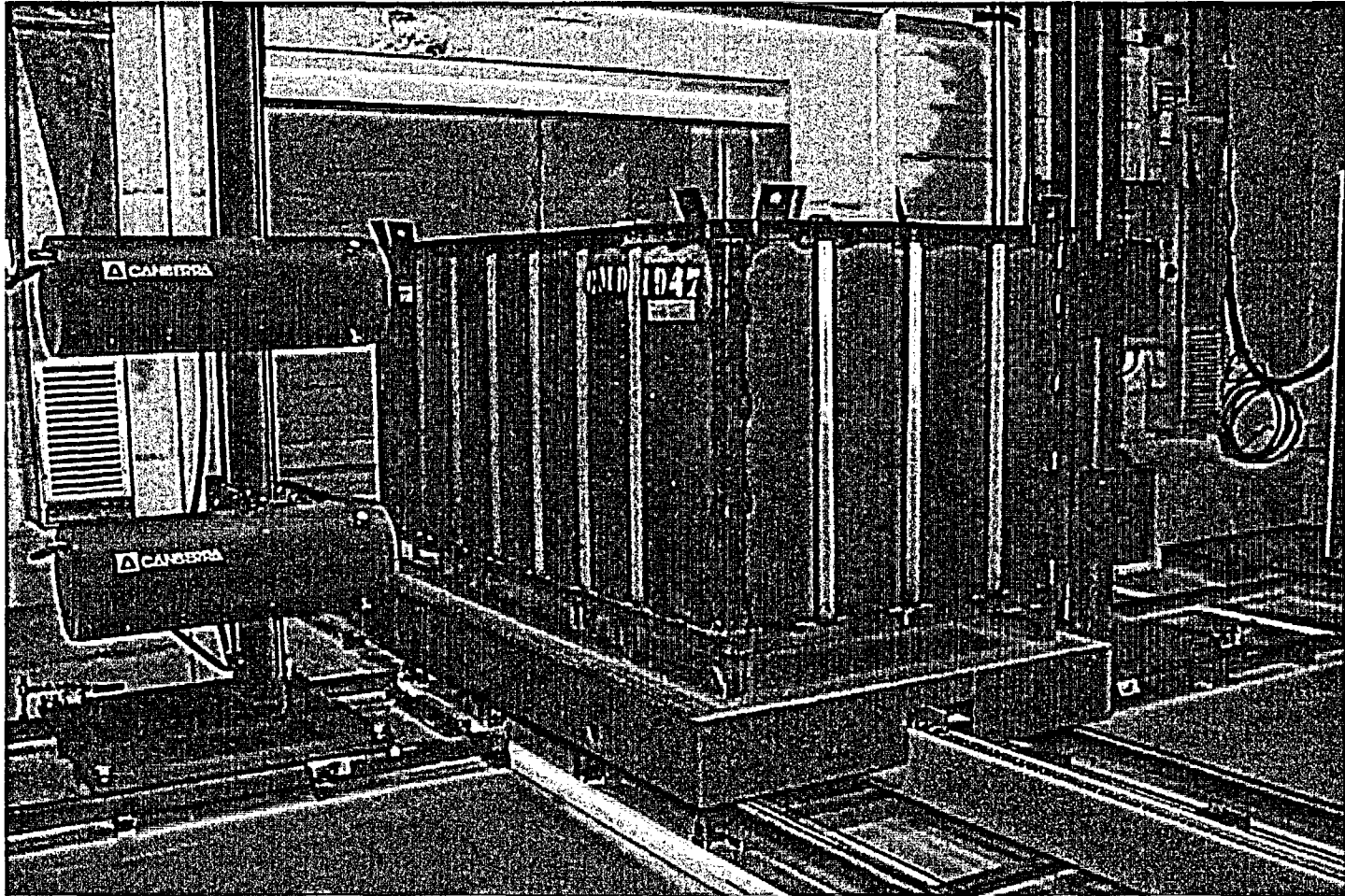
- Plan Generally to Remove SFP/IX Pit as Waste
- Based upon:
  - Existence of liner
  - Levels in underlying concrete
  - Potential for contaminated cracks
  - Anticipated material that can be kept on site

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# Results

- Reduces Number of Shipments by >1000
- Reduces Amount of Fill Required
- Reduces Shipment Distance for Free-Released Steel
- Reduces Risk from Shipment of VC Steel
- Net Cost Savings in Burial and Transportation

# Truck Gamma Spectroscopy System



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# Dose Modeling Approach

- Investigate Parallel Approaches for Below-Grade Concrete Debris
  1. CY approach to water transport model
  2. Discuss with BNL the use of site hydro-geological conditions to model diffusion/dilution from debris
- New Resident Farmer Scenario Using Concrete Debris to Grade/Contour Site
- Use Conservative Approach for Aggregate Concrete DCGL Determination

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# Anticipated LTP Changes

- Section 2
    - Additional survey areas
  - Section 3
    - Changes to LLW amounts
    - Additional decommissioning activities
  - Section 5
    - Method for performing FSS on debris
    - Methods for combining doses
  - Section 6
    - Determination of DCGLs for concrete debris
  - Section 8
    - Changes to LLW amounts
    - Environmental impacts of beneficial use of concrete debris
-



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# Current Status of Activities

- Developing Concrete Debris DCGLs
- Identifying Specific Text Impacted
- Evaluating the Impact on RAI Responses
- Target for Submitting Concrete Debris DCGLs—August 2004

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# Future Communications with NRC

- Schedule Discussions
- Periodic Calls
- Regular Meetings